

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty's Docket No:

Applicant(s) : Eckart Matthes et al.

Filed : Concurrently herewith

For : Chimeric Oligonucleotides and the Use Thereof

INFORMATION DISCLOSURE STATEMENT

Hon. Assistant Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

The following sections are being submitted for this Information

Disclosure Statement:

- Sec. 1 - Preliminary Statements
- Sec. 2 - Identification of Time of Filing
- Sec. 4 - Statements with Respect to Listing of Information
- Sec. 6 - Statements with Respect to Copies of Listed
Information Items Accompanying This Statement
- Sec. 8 - Concise Explanation of Listed Information Items

Section 1
Preliminary Statements

Applicants submit herewith patents, publications or other information of which they are aware, which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR 1.56.

While this Information Disclosure Statement may be "material" pursuant to 37 CFR 1.56 it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR 1.97(b) the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists.

Section 2
Identification of Time of Filing

This Information Disclosure Statement accompanies the new patent application submitted herewith. The references are cited in the present application and in the parent U.S. application serial number 09/423,157.

Section 4
Statements with Respect to Listing of Information

A list of the patent(s) and/or publications is set forth on the attached 5 pages of Form PTO-1449 (modified).

Section 5
Statements with Respect to Translations of
Non-English Information

No English language translations of the foreign language patents, publications or information or parts thereof are readily available.


Section 6
Statements with Respect to Copies of Listed Information
Items Accompanying This Statement

A copy of each of the items on PTO-1449 (modified) is supplied herewith.

Section 8
Concise Explanation of Listed Information Items

The German article entitled "Synthese und Eigenschaften von PNA/DNA-Chimären" is discussed on page 9 of the present application.

Respectfully Submitted,



Bruce S. Londa (33,531)

Attorney for Applicant

Norris, McLaughlin & Marcus P.A.

220 East 42nd Street, 30th Floor

New York, NY 10017

Telephone: 212-808-0700

Facsimile: 212-808-0844

LIST OF PATENTS AND PUBLICATIONS APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Form PTO-1449 Modified)	Attorney Docket:	Serial No.
	101195-24	
	Applicant:	
	Eckhart Matthes et al.	
	Filing Date:	Group:
	Concurrently herewith	

U.S. PATENT DOCUMENTS

Examiner's Initial		Document Number	Date	Name	Class	Sub Class	Filing Date If appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub Class	Translation Yes No
	AL						
	AM						
	AN						
	AO						
	AP						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	J. Hanvey et al.; Antisense and Antigene Properties of Peptide Nucleic Acids; Science, Vol. 258, 27 Nov. 1992, pgs. 1481-1485
	AS	C. Strahl et al.; Effects of Reverse Transcriptase Inhibitors on Telomere Length and Telomerase Activity in Two Immortalized Human Cell Lines; Molecular and Cellular biology, Jan. 1996; pgs. 53-65
	AT	J. Norton, et al.; Inhibition of Human Telomerase Activity by Peptide Nucleic Acids; Nature Biotechnology, Vol. 14, May 1996; pgs. 615-619

EXAMINER:

DATE CONSIDERED:

- **EXAMINER:** Initial if Reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformation and not considered, include copy of this form with next communication to applicant.
-

LIST OF PATENTS AND PUBLICATIONS APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Form PTO-1449 Modified)				Attorney Docket:		Serial No.	
				101195-24			
				Applicant:			
				Eckhart Matthes et al.			
				Filing Date:		Group:	
				Concurrently Herewith			
U.S. PATENT DOCUMENTS							
Examiner's Initial		Document Number	Date	Name	Class	Sub Class	Filing Date if appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Sub Class	Translation Yes No
	AL						
	AM						
	AN						
	AO						
	AP						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AR	J.Chen, et al.; Synthesis of Oligodeoxyribonucleotide N3'→P5' Phosphoramidates; 1995 Oxford University Press, Nucleic Acids Research, 1995, Vol. 23, No. 14, pgs. 2661-2668					
	AS	E. Uhlmann et al.; Synthese und Eigenschaften von PNA/DNA-Chimären; VCH Verlagsgesellschaft mbH; Angew.Chem. 1996, 108, Nr.22; pgs. 2793,2800					
	AT	C. Harley; Telomere Loss: Mitotic Clock or Genetic Time Tomb; Mutation Research, 256 (1991) pgs. 271-282					
EXAMINER:				DATE CONSIDERED:			
<ul style="list-style-type: none"> • EXAMINER: Initial if Reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformation and not considered, include copy of this form with next communication to applicant. • 							

LIST OF PATENTS AND PUBLICATIONS APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Form PTO-1449 Modified)				Attorney Docket:		Serial No.	
				101195-24			
				Applicant:			
				Eckhart Matthes et al.			
Filing Date:				Group:			
Concurrently Herewith							

U.S. PATENT DOCUMENTS							
Examiner's Initial		Document Number	Date	Name	Class	Sub Class	Filing Date if appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Sub Class	Translation Yes No
	AL						
	AM						
	AN						
	AO						
	AP						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)		
	AR	N. Kim, et al.; Specific Association of Human Telomerase Activity with Immortal Cells and Cancer; Science, Vol. 266, 23 Dec. 1994, pgs. 2011-2015
	AS	M. Piatyszek et al.; Detection of Telomerase Activity in Human Cells and Tumors by a Telomeric Repeat Amplification Protocol (TRAP); Methods in Cell Science 17: 1995, pgs. 1-15
	AT	R. Iyer et al; The Automated Synthesis of Sulfur-Containing Oligodeoxyribonucleotides Using 3H-1,2-Benzodithiol-3-one 1,1-Dioxide as a Sulfur-Transfer Reagent; J. Org. Chem. 1990, 55, pgs. 4693-4699

EXAMINER:	DATE CONSIDERED:
-----------	------------------

<ul style="list-style-type: none"> • EXAMINER: Initial if Reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformation and not considered, include copy of this form with next communication to applicant. •
--

LIST OF PATENTS AND PUBLICATIONS APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Form PTO-1449 Modified)				Attorney Docket:		Serial No.	
				101195-24			
				Applicant:			
				Eckhart Matthes et al.			
				Filing Date:		Group:	
				Concurrently herewith			
U.S. PATENT DOCUMENTS							
Examiner's Initial		Document Number	Date	Name	Class	Sub Class	Filing Date If appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Sub Class	Translation Yes No
	AL						
	AM						
	AN						
	AO						
	AP						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AR	S. McCurdy et al.; An Improved Method for the Synthesis of N3'→P5' Phosphoramidate Oligonucleotides; Tetrahedron Letters, Vol. 38, No. 2, 1997, pgs. 207-210					
	AS	H. Vu et al; Internucleotide Phosphite Sulfurization with Tetraethylthiuram Disulfide, Phosphorothioate Oligonucleotides Synthesis Via Phosphoramidite Chemistry; Tetrahedron Letters, Vol. 32, no. 26, 1991, pgs. 3005-3008					
	AT	C. Counter et al.; Telomerase Activity in Normal Leukocytes and in Hematologic Malignancies; Blood, Vol. 85, No. 9 May 1, 1995; pgs. 2315-2320					
EXAMINER:				DATE CONSIDERED:			
• EXAMINER: Initial if Reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. •							

LIST OF PATENTS AND PUBLICATIONS APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Form PTO-1449 Modified)				Attorney Docket:		Serial No.	
				101195-24			
				Applicant:			
				Eckart Matthes et al.			
				Filing Date:		Group:	
				Concurrently Herewith			
U.S. PATENT DOCUMENTS							
Examiner's Initial		Document Number	Date	Name	Class	Sub Class	Filing Date If appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Sub Class	Translation Yes No
	AL						
	AM						
	AN						
	AO						
	AP						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AR	C. Counter et al.; Telomerase Activity in Human Ovarian Carcinoma; Proc. Natl.Acad.Sci USA, Vol 91, April 1994, pgs. 2900-2904					
	AS	Stanley Crooke; Antisense Research and Applications, Chapter 1, Basic Principles of Antisense Therapeutics, Springer-Verlag Press, Berlin, Heidelberg, New York, p.3					
	AT						
EXAMINER:				DATE CONSIDERED:			
<ul style="list-style-type: none"> • EXAMINER: Initial if Reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformation and not considered, include copy of this form with next communication to applicant. • 							